

Abstract

A process for cultivating photosynthetic microbes comprising Closed Systems for continuous cultivation and Open Systems for batch cultivation, in which (a) the Closed System Area occupies no more than 20% of the Total Land Area of the cultivation facility; (b) batch cultures in the Open Systems are initiated with an inoculum from the Closed Systems containing a cell biomass of no less than 5% of the carrying capacity of said Open System; (c) the doubling rate of said photosynthetic microbe is no less than once every 16 hours; and (d) the residence time of the batch culture in said Open System is no more than a period of 5 days.